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Please find below and/or attached an Office communication concerning this application or proceeding.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/692,039
Filing Date: October 22, 2003
Appellant(s): TANIELIAN, MINAS

Hugh P. Gortler, Esq.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 22, 2010 appealing from the Office action mailed October 14, 2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

1-84

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-84 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for EM wavelengths usable by solar cells, does not reasonably provide enablement for EM wavelengths outside of the range usable by solar cells. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or to use the invention commensurate in scope with these claims.

Throughout claims 1-84, the claimed apparatus and method are claimed as employing, "electromagnetic energy"; however, in the Specification, the range of

wavelengths of "electromagnetic energy" used is very limited. For example, on page 6, line 34 of the Specification, the wavelength of electromagnetic energy discussed is 1.064 μm. Further, on page 9, line 16 of the Specification, the wavelengths discussed are those in the range of 1.06-1.07 μm. It is further noted that the structure used to convert the electromagnetic energy to “electrical power” is disclosed as the solar cell (e.g., see page 6, line 35 through page 7, line 1 of the Specification). The spectrum of "electromagnetic energy" is very broad, including radio waves, microwaves, infrared waves, visible light waves, ultraviolet waves, x-rays, and gamma rays. Only a small portion of the spectrum of "electromagnetic energy" can be converted to "electrical power" by means of the disclosed solar cells. Certainly, radio waves, microwaves, x-rays, and gamma rays can not be converted by any solar cell or anything else disclosed by Applicant into "electrical power." The lack of disclosure for the claim 1 “electromagnetic energy converter” and for the corresponding structure or method in the other apparatus claims and method claims for such electromagnetic energy conversion that is adequate to cover the full scope claimed causes the pending claims to fail for lack of adequate disclosure, since claims must be supported by the disclosure for their full breadth or scope.

(10) Response to Argument

Starting on page 9 of Applicant's Appeal Brief, a first argument is made that the “final office action interprets claim 1 as a single-means claim,” giving the reasons as to why claim 1 is not a single-means claim.

In response to this first argument, it is pointed out that there is no mention whatsoever in the Final Office Action of any of the pending claims being a single-means claim. Thus, it is not clear against what this argument in the Appeal Brief is being made. No real response can be made to this argument in the Appeal Brief since it seems to have nothing to do with the rejection of record.

Starting at page 11 of Applicant's Appeal Brief, a second argument is made that the rejection of record does not establish a reasonable basis to question the enablement provided for the claimed invention, at least in that the rejection of record does not alleged that undue experimentation would be required.

In response to this second argument, it is stated that the Final Office Action and the rejection as repeated above is quite reasonable as a basis to question the enablement of the rejected claims. It is true that “undue experimentation” is one test that may be used to establish a lack of enablement under 35 USC 112, first paragraph; however, the basis of the rejection of the claims of this application is that Applicant has failed to disclose structure to support electromagnetic energy conversion for the full scope of the claims. Current case law from the Court of Appeals for the Federal Circuit in Auto. Techs. Int'l, Inc. v. BMW of N. Am., Inc., 501 F.3d 1274 (Fed. Cir. 2007) is plain in holding that claims must be enabled for their full scope. In the claims at issue in the present application, the claims must be enabled for the "electromagnetic energy converter" (e.g., claim 1, line 5) and for corresponding method steps of electromagnetic energy conversion as to the entire spectrum of “electromagnetic energy,” using the plain meaning of the term. The disclosed structure for electromagnetic energy conversion

could in no way operate for the entire spectrum of “electromagnetic energy.” Such conversion of “electromagnetic energy" throughout its spectrum as in the claims would require radically different structures than the simple solar cells disclosed. Conversion of x-rays and gamma rays would go far beyond undue experimentation, and would require completely different technology that has not been disclosed at all. That is to say, one of ordinary skill-in-the-art would not be merely taking the disclosed solar cells and experimenting to find out how they might be modified to work for x-rays and gamma rays and so on, one of ordinary skill-in-the-art would be required to invent electromagnetic energy converters for several portions of the spectrum of "electromagnetic energy" for which such converters do not exist so that that person of ordinary skill-in-the-art could make and use the claimed invention for the full scope claimed. Applicant is not entitled to claim subject matter which he has not disclosed so as to teach one of ordinary skill-in-the-art how to make and to use the invention, especially when for certain portions of the spectrum of "electromagnetic energy" there is no disclosure at all.

Starting at page 14 of the Appeal Brief, a third argument is made that claims 3, 25, 47, and 71 are supported by the disclosure in that they do recite solar cells.

In response to the third argument, it is maintained as set forth above that such solar cells have not been disclosed so as to teach one of ordinary skill-in-the-art how to make and to use the invention containing the solar cells for the full scope of the spectrum of "electromagnetic energy."

Starting at page 15 of the Appeal Brief, a fourth argument is made that claims 4, 26, 48, and 72 are supported by the disclosure in that there is mention of an “electromagnetic energy receiver” (page 15, line 3 of the Appeal Brief).

In response to the fourth argument, the "electromagnetic energy receiver" that is mentioned could simply be the disclosed solar cells, so it is not seen how the change in terminology causes these claims to be supported by the disclosure. Assuming that the "electromagnetic energy receiver" is not the disclosed solar cells, the question arises as to what in the disclosure would teach one of ordinary skill-in-the-art how to make and to use the invention with such a non-solar-cell “electromagnetic energy receiver.” There is no adequate disclosure of any other electromagnetic energy converter or receiver in the Specification other than the disclosed solar cells. How would one of ordinary skill-in-the-art be taught how to make and to use embodiments where the "electromagnetic energy receiver" is anything other than the disclosed solar cells?

In summary, it is urged that the rejection of record of claims 1-84 under 35 USC 112, first paragraph, as set forth in this application be affirmed.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Bernarr E. Gregory/

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